POTABLE WATER COLLECTION (WMK/WS&A)

NOTE
Water collection will be taken from three locations for Chemical and Micro: SVO-ZV, Galley hot water tap, and Galley cold water tap.

1. Unstow
   ISS Potable Water Collection Subpack (WS&A) (one)
   Sharpie Pen (WS&A/WMK)
   WMK

NOTE
1. SVO-ZV: The hand-pump may be used to provide sufficient pressure to permit water sample collection. There is no device for accurate SVO-ZV water amount measurement. Crewmember will be required to perform visual estimation of 25 mL of flush water and 100 mL and 200 mL samples. 2. Galley water: Turn Galley heater on before collecting water samples. Start sampling only after heating cycle is completed. Each heating cycle requires 30 minutes for pasteurization of 525 mL of water. One delivery = 25 mL.

2. Wipe appropriate tap (Galley or SVO-ZV) with Disinfectant Wipe.
   Discard Wipe.

3. Remove water sampler from protective package.
   Place sampler package in WS&A.

WARNING
1. To avoid contamination, do not touch Galley (SVO-ZV) tap.
2. Hold sampler by middle only.

4. Put water sampler on Galley (SVO-ZV) tap.

5. ATTACH WASTE WATER BAG
   Remove protective cover from Waste Water Bag connection.
   Connect the Waste Water Bag to sampler.
   Attach Waste Water Bag connection ↷.

6. COLLECT WATER INTO WASTE WATER (FLUSH) BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 25 mL of water (one delivery) into Waste Water Bag (1/12 full). DELIVERY Valve → Close (after each portion collection)	Place 25 mL of water into Waste Water Bag (1/12 full).

> NOTE
> Do not remove Waste Water Bag until ready to connect TOC Water Sample Bag or Syringe.

7. If TOC Syringe Sample required, go to step 51.

8. Unstow TOC Water Sample Bag and particulate filter from Subpack.

9. Record date, time, and sampling location on TOC Water Sample Bag. Label using Sharpie Pen.

10. REMOVE WASTE WATER BAG
    Remove Waste Water Bag connection ↶.
    Remove Waste Water Bag from sampler.
    Replace protective cover onto Waste Water Bag connection.
    Place the Waste Water Bag into the Ziploc Bag in Subpack (WS&A).

11. ATTACH TOC WATER SAMPLE BAG TO SAMPLER CONNECTION
    Remove protective cover from TOC Water Sample Bag connection.
    Connect TOC Water Sample Bag to particulate filter.
    Attach TOC Water Sample Bag connection ↷.
    Connect particulate filter to sampler connection.
    Attach particulate filter connection ↷.

> NOTE
> Do not overfill bag. Overfilled bag may cause leakage.

12. COLLECT WATER INTO TOC WATER SAMPLE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 100 mL of water (four deliveries) into Water Sample Bag (1/3 full). DELIVERY Valve → Close (after each portion collection)	Place 100 mL of water into Water Sample Bag (1/3 full).

13. Remove Micro Sample Bag/Micro Water Archival Bag (for ground analysis) from WMK.
    Record date and circle sampling location (Galley hot, Galley cold, SVO-ZV) on Bag using Sharpie Pen.

> NOTE
> Do not remove TOC Water Sample Bag until ready to connect Micro Sample Bag.

14. REMOVE TOC WATER SAMPLE BAG AND PARTICULATE FILTER FROM SAMPLER
    Remove particulate filter connection ↶.
    Remove TOC Water Sample Bag connection ↶.
    Place protective cover on Water Sample Bag connection.

15. Disconnect cap from Micro Sample Bag.
    Connect Micro Sample Bag to water sampler.

16. Place TOC Water Sample Bag into Ziploc Bag.
    Tmpry stow Sample Bag in TBD.
    Place particulate filter into Ziploc Bag.
    Stow in Subpack.

17. COLLECT WATER INTO MICRO SAMPLE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 300 mL of water (12 deliveries) into Micro Sample Bag (full). DELIVERY Valve → Close (after each portion collection)	Place 300 mL of water into bag (full).

18. COLLECT ARCHIVE COLLECTION

If only Chemical Archive Collection is required
  Perform steps 19 --- 28

If Chemical and Micro Archive Collection is required
  Perform steps 29 --- 44

If no Archive Collection is required

> NOTE
> Do not remove Micro Sample Bag until ready to connect Waste Water Bag.

1. Remove Micro Sample Bag from water sampler.
2. Recap Micro Sample Bag.
3. Repeat steps 2 --- 18 for other ports requiring sampling.
4. Remove sampler from Galley (SVO-ZV) tap.
5. Place sampler into Ziploc Bag.
6. Place Ziploc in Subpack in WS&A.
7. Stow WS&A.

> NOTE
> Do not remove Micro Sample Bag until ready to connect Chemical Archive Bag.

19. Unstow Chemical Archive Bag.

Record date, time, and sampling location on Chemical Archive Bag Label using Sharpie Pen.

20. REMOVE MICRO SAMPLE BAG
    Disconnect Micro Sample Bag.
    Recap Micro Sample Bag.
    Tmpry stow Bag in WMK.

21. ATTACH CHEMICAL ARCHIVE BAG
    Remove protective cover from Chemical Archive Sample Bag connection.
    Connect Bag to sampler connection.
    Attach Bag connection ↷.

> NOTE
> Do not overfill bag. Overfilled bag may cause leakage.

22. COLLECT WATER INTO CHEMICAL ARCHIVE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous	Place 750 mL of water into Water Archive Bag (3/4 full).
DELIVERY Valve → Open	
PRESS WATER SUPPLY pb → On	
Place 750 mL of water (30 deliveries) into Water Archive Bag (3/4 full).	
DELIVERY Valve → Close (after each portion collection)	

> NOTE
> Do not remove Chemical Archive Bag until ready to connect Waste Water Bag.

23. REMOVE CHEMICAL ARCHIVE BAG
    Remove Chemical Archive Bag connection ↶.
    Place protective cover on Water Sample Bag connection.

24. Repeat steps 2 --- 23 for other ports requiring sampling.

25. Remove sampler from Galley (SVO-ZV) tap.

26. Place sampler into Ziploc Bag.
    Place in Subpack.

27. Place Subpack into WS&A.

28. Stow WS&A.

29. Perform steps 30 --- 44 only if Chemical and Micro Archive Collection are required.

NOTE
Do not remove Micro Sample Bag until ready to connect Chemical Archive Bag.

30. Unstow Chemical Archive Bag.

    Record date, time, and sampling location on Chemical Archive Bag Label using Sharpie Pen.

31. REMOVE MICRO SAMPLE BAG
    Disconnect Micro Sample Bag.
    Recap Micro Sample Bag.
    Tmpry stow Bag in WMK.

32. ATTACH CHEMICAL ARCHIVE BAG
    Remove protective cover from Chemical Archive Sample Bag connection.
    Connect Bag to sampler connection.
    Attach Bag connection ↷.

NOTE
Do not overfill bag. Overfilled bag may cause leakage.

33. COLLECT WATER INTO CHEMICAL ARCHIVE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 750 mL of water (30 deliveries) into Water Archive Bag (3/4 full). DELIVERY Valve → Close (after each portion collection)	Place 750 mL of water into Water Archive Bag (3/4 full).

34. Unstow Micro Archive Bag from WMK.

    Record date and circle sampling location (hot, cold, SVO-ZV) on Bag using Sharpie Pen.

35. REMOVE CHEMICAL ARCHIVE BAG
    Remove Chemical Archive Bag connection ↶.
    Place protective cover on Chemical Archive Bag connection.

36. Disconnect cap from Micro Archive Bag.
    Connect Micro Archive Bag to water sampler.

37. Place Chemical Archive Bag into Ziploc Bag.
Tmpry stow Archive Sample in TBD.

38. <u>COLLECT WATER INTO MICRO ARCHIVE BAG</u>

<u>Galley (hot or cold)</u>	<u>SVO-ZV</u>
Sw water portion in mL → Continuous	Place 1000 mL of water into bag (full).
DELIVERY Valve → Open	
PRESS WATER SUPPLY pb → On	
Place 1000 mL of water (40 deliveries) into bag (full).	
DELIVERY Valve → Close (after each portion collection)	

> <u>NOTE</u>
> Do not remove Micro Archive Bag until ready to connect Waste Water Bag.

39. <u>REMOVE MICRO ARCHIVE BAG</u>
Disconnect Micro Archive Bag.
Recap Micro Archive Bag.
Tmpry stow Bag in WMK.

40. Repeat steps 2 --- 39 for Chemical and Micro (hot, cold, and SVO-ZV).

41. Remove sampler from Galley (SVO-ZV) tap.

42. Place sampler into Ziploc Bag.
Place in Subpack.

43. Place Subpack into WS&A.

44. Stow WS&A.

> <u>NOTE</u>
> Do not perform steps 45 --- 84 unless instructed to take In-Flight Chemical Sample with TOC Sample Syringe.

45. Unstow TOC Sample Syringe with particulate filter from Subpack.

46. Record date, time, and sampling location on TOC Sample Syringe Label using Sharpie Pen.

NOTE
Do not remove Waste Water Bag until ready to connect TOC Sample Syringe.

47. REMOVE WASTE WATER BAG
    Remove Waste Water Bag connection ↶.
    Remove Waste Water Bag from sampler.
    Replace protective cover onto Waste Water Bag connection.
    Place the Waste Water Bag into the Ziploc Bag in Subpack (WS&A).

48. ATTACH TOC SAMPLE SYRINGE TO SAMPLER CONNECTION
    Attach syringe with particulate filter to sampler connection.
    Attach particulate filter connection ↷.
    √Connection is tight

49. OPEN SYRINGE SHUT-OFF VALVE

NOTE
Plunger is designed so that it cannot be withdrawn beyond 25 mL mark. Do not underfill syringe.

    Turn valve to position that is parallel to flow direction.

50. COLLECT WATER INTO TOC SAMPLE SYRINGE

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 25 mL of water (one delivery) into TOC Water Sample Syringe. DELIVERY Valve → Close (after each portion collection)	Place 25 mL of water into TOC Sample Syringe.

51. CLOSE SYRINGE SHUT-OFF VALVE
    Turn valve perpendicular to flow direction.

52. Remove Micro Sample Bag from WMK.
    Record date and circle sampling location (Galley hot, Galley cold, SVO-ZV) on Bag using Sharpie Pen.

NOTE
Do not remove Sample Syringe until ready to connect Micro Sample Bag.

53. Remove Sample Syringe with particulate filter from sampler connection ↶.

54. Disconnect cap from Micro Sample Bag.
Connect Micro Sample Bag to water sampler.

55. Remove particulate filter from syringe.
Place filter into Ziploc Bag.
Tmpry stow filter in WS&A.

56. Place protective cover on syringe.
Place syringe into Ziploc Bag.
Tmpry stow in WS&A.

57. COLLECT WATER INTO MICRO SAMPLE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous	Place 300 mL of water into bag (full).
DELIVERY Valve → Open	
PRESS WATER SUPPLY pb → On	
Place 300 mL of water (12 deliveries) into Micro Sample Bag (full).	
DELIVERY Valve → Close (after each portion collection)	

58. COLLECT ARCHIVE COLLECTION
If only Chemical Archive Collection is required
  Perform steps 59 --- 68
If Chemical and Micro Archive Collection is required
  Perform steps 69 --- 84
If no Archive Collection is required

NOTE
Do not remove Micro Sample Bag until ready to connect Waste Water Bag.

1. Remove Micro Sample Bag from water sampler.

2. Recap Micro Sample Bag.
Tmpry stow Bag in WMK.

3. Repeat steps 2 --- 58 for other ports requiring sampling.

4. Remove sampler from Galley (SVO-ZV) tap.

5. Place sampler into Ziploc Bag in Subpack in WS&A.

6. Stow WS&A.

NOTE
Do not remove Micro Sample Bag until ready to connect Chemical Archive Bag.

59. Unstow Chemical Archive Bag.
Record date, time, and sampling loaction on Chemical Archive Bag Label using Sharpie Pen.

60. REMOVE MICRO SAMPLE BAG
Disconnect Micro Sample Bag.
Recap Micro Sample Bag.
Tmpry stow Bag in WMK.

61. ATTACH CHEMICAL ARCHIVE BAG
Remove protective cover from Chemical Archive Bag connection.
Connect Bag to sampler connection.
Attach Bag connection ↷.

NOTE
Do not overfill bag. Overfilled bag may cause leakage.

62. COLLECT WATER INTO CHEMICAL ARCHIVE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 750 mL of water (30 deliveries) into Water Archive Bag (3/4 full). DELIVERY Valve → Close (after each portion collection)	Place 750 mL of water into Water Archive Bag (3/4 full).

NOTE
Do not remove Chemical Archive Bag until ready to connect Waste Water Bag.

63. REMOVE CHEMICAL ARCHIVE BAG
    Remove Chemical Archive Bag connection ↶.
    Place protective cover on Water Sample Bag connection.

64. Repeat steps 2 --- 63 for other ports requiring sampling.

65. Remove sampler from Galley (SVO-ZV) tap.

66. Place sampler into Ziploc Bag.
    Place in Subpack.

67. Place Subpack into WS&A.

68. Stow WS&A.

69. Perform steps 70 --- 84 only if Chemical and Micro Archive Collection are required.

NOTE
Do not remove Micro Sample Bag until ready to connect Chemical Archive Bag.

70. Unstow Chemical Archive Bag.
    Record date, time, and sampling loaction on Chemical Archive Bag Label using Sharpie Pen.

71. REMOVE MICRO SAMPLE BAG
    Disconnect Micro Sample Bag.
    Recap Micro Sample Bag and tmpry stow in WMK.

72. ATTACH CHEMICAL ARCHIVE BAG
    Remove protective cover from Chemical Archive Bag connection.
    Connect Bag to sampler connection.
    Attach Bag connection ↷.

NOTE
Do not overfill bag. Overfilled bag may cause leakage.

73. COLLECT WATER INTO CHEMICAL ARCHIVE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 750 mL of water (30 deliveries) into Water Archive Bag (3/4 full). DELIVERY Valve → Close (after each portion collection)	Place 750 mL of water into Water Archive Bag (3/4 full).

74. Unstow Micro Archive Bag from WMK.
Record date and circle sampling location (hot, cold, SVO-ZV) on Bag using Sharpie Pen.

75. REMOVE CHEMICAL ARCHIVE BAG
Remove Chemical Archive Bag connection ↶.
Place protective cover on Chemical Archive Bag connection.

76. Disconnect cap from Micro Archive Bag.
Connect Micro Archive Bag to water sampler.

77. Place Chemical Archive Bag into Ziploc Bag.
Tmpry stow Archive Sample Bag in TBD.

78. COLLECT WATER INTO MICRO ARCHIVE BAG

Galley (hot or cold)	SVO-ZV
Sw water portion in mL → Continuous DELIVERY Valve → Open PRESS WATER SUPPLY pb → On Place 1000 mL of water (40 deliveries) into bag (full). DELIVERY Valve → Close (after each portion collection)	Place 1000 mL of water into bag (full).

NOTE
Do not remove Micro Archive Bag until ready to connect Waste Water Bag.

79. REMOVE MICRO ARCHIVE BAG
    Disconnect Micro Archive Bag.
    Recap Micro Archive Bag.
    Tmpry stow Bag in WMK.

80. Repeat steps 2 --- 79 for Chemical and Micro (hot, cold, and SVO-ZV).

81. Remove sampler from Galley (SVO-ZV) tap.

82. Place sampler into Ziploc Bag.
    Place in Subpack.

83. Place Subpack into WS&A.

84. Stow WS&A.